

# Customer Perspectives and Demographic Factors Affecting the Demand and Marketing Mix for Grab Taxi Services in Nakhon Ratchasima

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The target group used in the study is consumers who live in Nakhon Ratchasima province, which is the economic centre of the lower northeastern region in Thailand, aged between 25 - 55 years, both with and without experience in using Grab Taxi service. It was found that Convenience Factor has the highest opinion level, followed by the Factors of Comfort in Communication in response to the Completion of the Customer Value, Cost to Customers, and Customer Caring respectively. Besides, the analysis results showed that different professional demographic factors affected marketing mix factors in the consumer's perspective on cost and success in meeting demand.

**Keywords:** *Marketing Mix factors, demand, Grab taxi, Nakhon Ratchasima*

## Introduction

Transportation plays a significant role today, as it is responsible for linking communities or activities together. The efficient transportation system will result in better social, economic, and national development. At present, the use of public transport in the type of taxis has more choices, especially the use of calling cars via the application. This is caused by the development of system applications (Operation System) and software applications that respond to the use of smartphones that are more efficient allowing smartphone users to use various programs to respond to daily activities more conveniently and quickly. In Thailand, there are service providers for calling cars through the application by having the Grab Taxi system. The first service provider officially launched in Thailand and began service since October 2013, with Grab Taxi taking over the role of being a taxi calling system for passengers including taxi distribution services to drivers through a smartphone system or "Grab Taxi" application, to

enhance the taxi service to be more secure, reliable and more efficient (Grab, 2018). Due to the increasing trend of using smartphones and many problems from using a public taxi today, Grab Taxi has become very popular, as it is able to respond to the needs of passengers and the needs of the taxi drivers well. It is also a service that is in line with the lifestyles of the new generation online. The distinctive feature of the Grab Taxi service is the ability to specify the current location of the car, check before using the service which is the driver with clear history specified track cases of missing and post comments after using the service, which is a safe service for consumers. For this reason, Grab Taxi is widespread, especially among working people and tourists.

Nakhon Ratchasima is the gateway to the Northeast region of Thailand. It is the economic centre of the lower northeastern region with a large population of people and density of communication. In addition, Nakhon Ratchasima is located in urban areas where public transportation systems are not enough and do not meet the needs of today's consumers in terms of speed and convenience. Taxi service via Grab Taxi is considered a new dimension of taxi service, giving consumers more options to use the passenger transportation system. When consumers have more choices, business operators must, therefore, give importance to concepts that are based on consumers as the centre. By studying the behaviour or marketing mix factors related to the customers, the business can create maximum satisfaction for consumers. If consumers feel satisfied with the service, they tend to use the service again until reaching the point of becoming loyal customers and will often recommend others to use the service too (Yookhong, 2012).

The recent Grab Taxi study by Keawnakorn (2017) shows the influence of technology, marketing mix, the service, and image help people decide to use the Grab Taxi service. Chookul (2016) finds that the factors that influence the selection of the service of applications to call public passenger cars by consumers in Bangkok and its surrounding provinces. Also, a study by Rukwongtrakool (2017) indicates that many factors affected the satisfaction of using the taxi service via mobile app Grab taxi application.

The above significance, therefore, shows relevant issues that can be further studied about the demographic factors of occupation and the demand for services that affect marketing mix factors from the perspective of Grab Taxi users in Nakhon Ratchasima to obtain information about the characteristics of the need to use Grab Taxi by measuring the marketing mix from the customer perspectives (7C's) to use in changing, developing or planning marketing strategies to attract customers to use continuous service that can genuinely create consumer satisfaction.

## Objectives

1. To study the opinions of marketing mix factors from the consumer perspectives (7C's) with Grab Taxi in Nakhon Ratchasima.
2. To analyse demographic factors by different occupational groups affecting the marketing mix from the consumer perspectives (7C's) towards the use of Grab Taxi service in Nakhon Ratchasima.
3. To analyse the demand for the Grab Taxi service in Nakhon Ratchasima province, affecting the marketing mix from the consumer perspectives (7C's).

## Literature Review

### *Marketing Mix Theory from the Consumer Perspectives (7c'S)*

Businesses must not only meet customer needs by considering the importance of marketing mix in all 7 Cs, by measuring from the perspective of the business that provides services to manage the business marketing successfully but also considers marketing mix from the customer perspectives. The marketing mix theory from consumer perspectives (Serirat, 2000) consists of the seven areas as follows.

(1) Customer Value: the primary consideration of customers is various values or benefits to be received as compared to the money paid. Therefore, businesses must offer only services that genuinely meet their needs; (2) Cost to Customers: money that customers are willing to pay for that service must be worth the service to be received if customers are willing to pay a high price indicating that the expectation of that service is also high. Therefore, in setting the service price, businesses must find a price that customers are willing to pay to use that price in various cost reductions making it possible to offer services at a price that is acceptable to the customers; (3) Convenience: it is what the customers need, that business must create convenience for customers, whether contacting or inquiring about information or using the service if customers going to use service are not convenient. Business must also be responsible for creating convenience for customers; (4) Communication: if customers would like to receive useful information and want to contact a business to provide information, comments, or complaints, businesses must procure media suitable for their target customers in order to provide and receive feedback from customers; (5) Caring: customers need great care from service providers from the beginning of use to that destination regardless of whether it is the first time or any time of service usage, or regardless of whoever the service is provided for; (6) Completion: customers are expected to receive a complete response although the process of how complicated the service is, how many employees are hired, no customers come to know, but they know only that the service process must meet all requirements, not lacking; and, (7)

Comfort: it is a service that must create eye comfort and peace of mind for customers especially if customers come to use that service, it must render physical comfort.

Based on the marketing mix concept from the customer perspectives (7C's) in this research, the marketing mix from the customer perspectives (7C's) means influences or things affecting the customers' decisions to use Grab Taxi in Nakhon Ratchasima, developed from the marketing mix of Serirat, et al. (7C's), consisting of 7 areas: Value, Cost, Convenience, Communication, Caring, Completion and Comfort in responding to needs to take advantage in formulating marketing mix strategies in the view of effective customers to decide to use the Grab Taxi service in Nakhon Ratchasima.

### ***Theory of Consumers Demand***

Maslow (1970) believes that humans are born naturally and are ready to do good deeds if human needs are adequately responded. Maslow is the humanist psychologist who studied human needs seeing that all human beings have a desire to satisfy their own many different needs. He has put those needs in order from the lowest to the highest, with 5 levels as follows.

(1) physiological need or basic needs; (2) safety need for feeling secure; (3) belongingness and love need or need to be accepted by the group; (4) self-esteem need for honour and prestige from society; and (5) self-actualisation need to be oneself and succeed.

The concept of consumers' demand used in this research refers to the level of needs of individuals at each stage. Every consumer will have basic needs as a starting point. The next step depends on the needs of the consumer to be satisfied with and how much.

### **Related Research Studies**

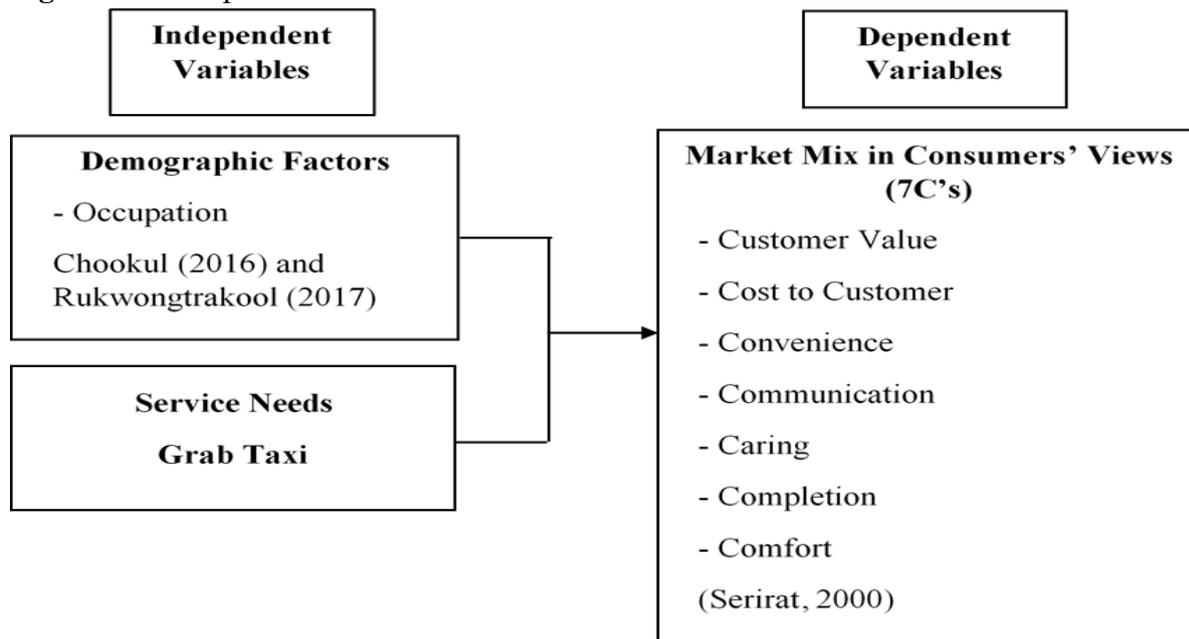
The use of Grab Taxi applications has been studied in many issues, including the study of Sakarasarane (2015) on the decision to use taxi service via mobile apps in Bangkok by studying the behaviour of the taxi service through mobile applications on the customer decisions to use the taxi service. There was also a study by Khongman and Wongbangpo (2017) regarding the quality of service and satisfaction of using the Grab Taxi service of Gen X consumers in Bangkok on the demographic factors and service quality awareness that affects the satisfaction of using the service that emphasises only marketing mix factors. There was also another study by Nguansomeang (2018) which found that demographic variables, service behaviours and the way of life affect the use of taxi application services. Based on the literature review, the research hypotheses are:

**H1:** Different demographic occupations affect the feedback level in the marketing mix factors from the consumer perspectives (7C's) at the statistical significance level of 0.05;

**H2:** The demand for the Grab Taxi service in Nakhon Ratchasima is different for the marketing mix from the consumer perspectives (7C's) at the statistical significance level of 0.05.

The above literature review and related research led to the formulation of guidelines for developing the conceptual research framework in the study, as shown in Figure 1.

**Figure 1.** Conceptual Framework



### Research Methodology

This research is quantitative research with a survey research format. The target group used in the study is consumers living in Nakhon Ratchasima, aged between 25 - 55 years, who have had experience in using Grab Taxi and consumers expected to use the Grab Taxi service in the future (National Statistical Office in Nakhon Ratchasima Province, 2017) determining the amount from the calculation formula of Yamane (1973), by specifying a 90% of variance value from a sample of 100. Questionnaires were used to collect data consisting of (1) general information of respondents; (2) information about marketing mix factors from the consumer's point of view; and (3) the need for using Grab Taxi. The questionnaire data in (2) and (3) were brought to test the validity by finding the accuracy of the questionnaire or the consistency between the question and the objective or content using Index of item objective congruence: IOC. The results show that the IOC is in the range 0.67 - 1.00, which is greater than 0.50 (Rovinelli & Hambleton, 1977) and has a reliability value using Cronbach's alpha Coefficient found in the range 0.740 - 0.924, which is higher than 0.70 (Tavakol & Dennick, 2011). So,

the questionnaire is considered a useful tool for data collection from the target group with acceptable validity and reliability.

Data collected from questionnaires were analysed using descriptive statistical analysis including Percentage, Mean and Standard Deviation using inferential statistics, that is One-way ANOVA analysis and Independent Sample T-Test.

### **Results of the Study**

Results of general data analysis of respondents show that most of the samples were female, 62.0%, aged between 25-30 years, 37.0%, were mostly civil servants/state-owned enterprises, or 35.0%, with income at 30,000 baht up, or 41.0% and had a high education level, above bachelor degrees, 41.0 per cent.

The overall results of the analysis of marketing mix factors from the consumer perspectives affecting the demand for the Grab Taxi service indicated that the demand for service is highest in terms of Convenience with the mean of 4.18, followed by Comfort: 4.10, Communication: 4.05, Completion: 4.00, Customer value: 3.99, Cost to Customer: 3.98, and Caring: 3.94.

Regarding the Customer Value, the sample group gave the opinion about the use of Grab Taxi in response to the needs of the customers of technology, with the mean of 4.07, followed by the use of Grab Taxi with the value useful for travelling by the mean of 4.06, using Grab Taxi through the application created a good image for customers, with the mean of 3.92, and using Grab Taxi is worth the money paid, with the mean of 3.90.

On Cost to Customers, the sample group showed the opinion about using Grab Taxi service with the most transparent and most accurate service rate display, with the mean of 4.08, followed by Grab Taxi service with the service fee rate that customers are willing to pay, with the mean of 3.99, Grab Taxi service has set a price acceptable to customers with the mean of 3.93, and Grab Taxi service has a reasonable rate when compared to providing services with the mean of 3.93.

For Convenience, the sample group gave the opinion about using Grab Taxi service to send customers to the most destinations with the mean of 4.35, followed by using Grab Taxi through the application, allowing customers to access the service, with the mean of 4.32 quickly, and Grab Taxi service provides information inquiry services with the mean of 3.87.

Regarding Communication, the sample group indicated the opinion about the use of the Grab Taxi service to send information to customers through the most applications, with the mean of 4.09, and using Grab Taxi using the application as a channel to show complaints and suggestions from customers with the mean of 4.00.

On Caring, the sample group had the opinion that Grab Taxi drivers provided customers with the most safety and traffic regulations with the mean of 4.04, followed by the Grab Taxi drivers having a good understanding of the route, with the mean of 3.89. Grab Taxi drivers take good care of customers with a mean of 3.88.

Regarding the Completion, the sample group provided the opinion level of using Grab Taxi service to meet the needs of the customers perfectly, with the mean of 4.03, followed by using Grab Taxi with simple steps having the mean of 4.0, and Grab Taxi has a straightforward process, with the mean of 3.98.

Concerning Comfort, the sample group showed the opinion about using Grab Taxi service to send the driver to pick up customers at the most appointment point, with the mean of 4.25, followed by the use of Grab Taxi service to provide customers at all times and the condition of the car that is ready to use with the mean of 4.04 and the Grab Taxi service has clean interior conditions creating eye comfort for customers with the mean of 4.01.

The needs for choosing the Grab Taxi service of the sample group are 86.0%, and 14.0% do not want to use Grab Taxi.

Analysis of demographic factors for different occupations showed an influence on marketing mix factors from the consumer perspectives (7C's) by using inferential statistics with an F-test at a significant level of 0.05. The analysis results are shown in Table 1.

The results show that the different occupational demographic factors affected the marketing mix in the consumer perspective, cost and completion in responding to needs, but did not affect the marketing mix in the consumer perspectives in Customers Value, Convenience, Communication, Care, and Comfort.

Therefore, by analysing the differences of statistical value by comparing differences of marketing mix factors from the consumer perspectives classified by occupation in a paired test using the Post-hoc with Scheffe method in the cost factor and completion in responding to needs, it was found that personal/independent business careers, civil servants/state-owned and other occupations have the level of opinions on cost factors and completion in responding to needs more than a career in a private company.

**Table 1:** Statistics comparing the occupational demographic factors of different consumers affecting marketing mix factors in the consumer perspective (7C's)

<b>Marketing mix factors in the consumer perspective (7C's)</b>	<b>F-test</b>	<b>Sig.</b>
Customer Value	1.632	.173
Cost to Customer	3.042	.021*
Convenience	2.134	.083
Communication	0.987	.418
Caring	1.883	.120
Completion	3.073	.020*
Comfort	1.180	.324

\*Level of significance 0.05

Hypothesis analysis of the different needs for choosing Grab Taxi service in Nakhon Ratchasima province affected marketing mix factors from the consumer perspectives (7C's) by using inferential statistics with T-test statistic at the significant level of 0.05. The analysis results are shown in Table 2.

Based on the results of the analysis of the demand for the Grab Taxi service in Nakhon Ratchasima (7C's) with T-test statistics, it was found that the demand for Grab Taxi services affected marketing mix factors from the consumer perspectives in Customers Value, Costs, Care, Completion, and Comfort, except for Convenience and Communication.

**Table 2:** The demand for the Grab Taxi service in Nakhon Ratchasima province affects the opinion level, the marketing mix in the consumer perspective (7C's)

Marketing mix factors in the consumer perspective (7C's)	T-test	Sig.	Mean Demand	No Demand
Customer Value	0.032	.009*	4.1366	3.0714
Cost to Customer	2.395	.031*	4.1047	3.2321
Convenience	1.989	.067	4.2868	3.5238
Communication	1.830	.089	4.1453	3.4286
Caring	2.663	.019*	4.0581	3.1905
Completion	3.623	.003*	4.1589	3.0476
Comfort	3.118	.007*	4.2442	3.2143

\*Level of significance 0.05

## Discussion

The results showed that different occupational demographic factors affected marketing mix factors from the consumer perspectives, only in terms of Cost and Completion in meeting the needs, except Customer Value, Convenience, Communication, Care and Comfort. This is consistent with the Ngunsomeang (2018) study that users with different professions had different levels of satisfaction of using the taxi application service in Bangkok. However, the research results are not consistent with Rukwongtrakool (2017) study of the factors affecting the satisfaction of using the taxi service via Grab mobile application, which found that demographic characteristics of different careers did not affect the satisfaction of service. Moreover, Chookul (2016) study found that different occupational factors did not affect the decision to use the passenger car application in the overall.

The results of the analysis of the demand for the Grab Taxi service in Nakhon Ratchasima having an effect on opinion levels of marketing mix factors from the consumer perspectives (7C's) indicated that the demand for Grab Taxi services affected marketing mix factors was in consistence with the study of Sakarasarane (2015) which showed that the differences in the frequency of service use per month, important reasons to use the service when choosing to use the service, and the cost of using the service per time affected the decision to use the taxi through mobile applications in Bangkok. The study was consistent with the research results of Chookul (2016) showing that service process factors and the factors of application products affected the use of Grab Taxi service in Bangkok, and with the study of Rukwongtrakool (2017) that the factors affected the satisfaction of using Taxi service via Grab mobile application was the price, the speed and the sufficiency of the service, process, distribution channel, personnel, and physical presentation.

## Research Recommendations

### *For use*

Business operators should clearly emphasise that Grab Taxi drivers give more to customers who use the service, from the beginning of the service process until the service process is completed. It is an essential factor that affects the user experience, makes customers satisfied, makes them reuse and have a referral until resulting in acceptance and a good image, or even becoming well-known among new users, to give customers the feeling that using Grab Taxi is worth the money they pay and enable service providers to create competitive advantages efficiently.

There should be continuous improvement in Convenience; that is, customers can access the service quickly and conveniently. Grab Taxi can provide services at all times. The car condition must be ready for use, comfortable for the customer, and suitable communication enables service providers and clients to get to know each other. As a result, Grab Taxi's marketing promotion will be successful. These various factors are the things that business operators must maintain or consistently improve their service standards to retain existing customers and increase new customer base.

Grab Taxi operators should plan, analyse and develop marketing strategies, appropriate or consistent with different occupational groups, such as promotional activities that are different in each career group, to attract more professional groups to the Grab Taxi.

Grab Taxi operators must develop the ability to respond to the needs of technology customers because, at present, the behaviour of users in most cases will give importance to technology that can respond to their needs quickly.

Costs: Grab Taxi operators must pay attention to the costs that customers pay in the form of money, cost, time and various risk costs. Therefore, Grab Taxi must improve the quality of service regularly, and consider the service that can make the users feel that each use of the service is worth the cost.

Care: Grab Taxi drivers must study and know travel directions well. It should be better to reduce the use of GPS for navigation because sometimes GPS will take to the main routes with longer distances. But if the Grab Taxi driver has studied the route well and have an understanding of all routes, he will be able to use the route to take users to the nearest distance and save more time. It also can make a good impression on users.



Completion: Grab Taxi service should have easy steps and can access the service efficiently and quickly, focusing on adequately responding to the needs of customers from the service process to the end of the service process at the heart of the service provider by taking customer-centric as well as increasing the number of services of Grab Taxi more, covering areas with relatively high purchasing power because it is an excellent opportunity for increasing the number of customers who come to use the service.

Convenience: Grab taxi should maintain the standard of service in terms of drivers picking up customers at the appointment point and delivering customers to destinations as agreed, should reduce customer rejection while customers perform service calls through the application. If the driver is not convenient to pick up the customer, he should hurry to contact and assist customers in contacting other Grab drivers. Grab Taxi drivers must check vehicle availability taking care of cleaning cars both inside and outside, which is an element of creating eye comfort and comfort for customers.

### ***For Further Research***

A more qualitative research study should be conducted, such as through in-depth interviews, focus groups, etc., to gain more in-depth information in formulating strategies for entrepreneurs, the current Grab Taxi service operators that are new service providers to meet the needs of current users and users who expect to use Grab Taxi in the future.

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